

What Is Claimed Is:

1. A window-integrated antenna in a vehicle having a first conductor configuration (L_{FM}) for FM reception, provided in or on the window, which includes heating conductors supplied via a first decoupling and matching circuit (EA1) and having a second conductor configuration (L_{AM}), intended for AM reception and spatially separated from the first conductor configuration (L_{FM}), a second decoupling and matching circuit (EA2) being provided, via which the conductors of the second conductor configuration (L_{AM}) are supplied, wherein the second decoupling and matching circuit (EA2) is situated downstream from the first decoupling and matching circuit (EA1).
2. The window-integrated antenna in a vehicle as recited in Claim 1, wherein the second decoupling and matching circuit (EA2) is split in two (EA21, EA22).
3. The window-integrated antenna in a vehicle as recited in Claim 1 or 2, wherein the heating conductors (H_{AM}) of the second conductor configuration (L_{AM}) form one heating conductor loop or multiple parallel heating conductor loops.
4. The window-integrated antenna in a vehicle as recited in one of Claims 1 through 3, wherein the first conductor configuration (L_{FM}) takes up at least 2/3 of the height of the vehicle window (S), and the second conductor configuration (L_{AM}), situated parallel to the first conductor configuration, takes up the rest of the height of the vehicle window (S).
5. The window-integrated antenna in a vehicle as recited in one of Claims 1 through 4, wherein the heating conductors (H_{AM} , H_{FM}) of the first and the second conductor configuration (L_{AM} , L_{FM}) are connected at one side to the frame potential.
6. The window-integrated antenna in a vehicle as recited in one of Claims 2 through 5, wherein the second decoupling and matching circuit (EA2) is implemented using two filter structures (EA21, EA22) at both sides of a vehicle window, a rear window (S) in particular.

7. The window-integrated antenna in a vehicle as recited in one of Claims 2 through 5, wherein the second decoupling and matching circuit (EA2) is implemented using two filter structures (EA21, EA22) on a vehicle window, a rear window (S) in particular.
8. The window-integrated antenna in a vehicle as recited in one of Claims 1 through 7, wherein the second decoupling and matching circuit (EA2) is situated in a shunt circuit of the first decoupling and matching circuit (EA1) and, in comparison to the overall heating current, is supplied with a lower direct current than the first decoupling and matching circuit (EA1).
9. The window-integrated antenna in a vehicle as recited in one of Claims 1 through 8, wherein the second conductor configuration (L_{AM}) is made up of a conductor loop whose terminal ends (F) are provided at one side of the vehicle window, a rear window (S) in particular.
10. The window-integrated antenna in a vehicle as recited in one of Claims 1 through 5 or 8, wherein the second conductor configuration (L_{AM}) is made up of an unfolded printed conductor whose terminal ends are provided at sides of the vehicle window opposite to each other, a rear window (S) in particular.
11. The window-integrated antenna in a vehicle as recited in Claim 6, 7, or 8 and Claim 10, wherein the terminal ends of the unfolded printed conductor are each connected to one of the two filter structures (EA21, EA22).
12. The window-integrated antenna in a vehicle as recited in one of Claims 1, 6, 7, 8, or 11, wherein only one of the two filter structures (EA21, EA22) is provided for coupling out the AM antenna signal.